



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

2

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,707	03/03/2005	Oliver Amberny	28944/41036	7433
4743 7590 04/05/2007 MARSHALL, GERSTEIN & BORUN LLP 233 S. WACKER DRIVE, SUITE 6300 SEARS TOWER CHICAGO, IL 60606			EXAMINER HOLLIDAY, JAIME MICHELE	
			ART UNIT 2617	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE 3 MONTHS		MAIL DATE 04/05/2007	DELIVERY MODE PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/526,707	Applicant(s) AMBERNY ET AL.	
	Examiner Jaime M. Holliday	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Applicant's arguments, see "REMARKS", filed February 21, 2007, with respect to the rejection(s) of claim(s) 1-16 under U.S.C. 103 (a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Lesguillier et al.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. **Claims 1, 2, 7-9, and 13-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Griffin et al. (Pub # U.S. 2004/0063456 A1)** in view of **Lesguillier et al. (U.S. Patent # 6,727,804 B1)**.

Consider **claim 1**, Griffin et al. clearly show and disclose a communication device having multiple detachable communication modules includes a first communication module and a second communication module. The first communication module is configured to receive RF signals from a wireless network. The second communication module preferably includes a rechargeable power source that is recharged by the first communication module through the charging terminals while the second communication module is in its fully mounted position. The charging terminals on the first communication module are preferably coupled to an internal power source through appropriate conversion and control circuitry in order to provide a charge to an additional power source in the second communication module. The device **10** could also be adapted to receive a connector jack or plug from a more common wall-mounted type charger device, reading on the claimed "central base for a private wireless local area network, the central base comprising an electronic central unit that is supplied with electricity by at least one live supply line intended to be connected to an external electricity power source, said central base adapted to communicate, with a public telecommunication network," (abstract, paragraphs 35, 37).

Communication between the multiple-module device **212/214** and the computer **232** provides for countless possible functionality options, such as simple paging and other notification, remote- and voice-activated computer and peripheral control and wireless file or information downloading and uploading. This system may also be further expanded to include network communications between the

first and second communication modules and wired network through the PC to incorporate connectivity via small pico-cell networks. Each such "base station" third module could, for example, then be configured for short-range communication with the first and/or second communication modules of all multiple-module communication devices issued to corporate employees, reading on the claimed "with at least one wireless peripheral device, according to a digital bidirectional wireless protocol for a private wireless local area network," (paragraph 62). The first communication module preferably includes a pair of antennas, a processor, a memory, an LCD display, at least one rechargeable battery, a long-range RF transceiver, one or more short-range RF transceivers, a power supply and recharging circuit, a cradle interface circuit, and one or more input devices, including, preferably, a keyboard and a thumbwheel. The input devices on the first communication module are preferably used to respond to and generate messages, such as email messages. The long-range RF transceiver is used to send and receive information from the long-range wireless network, and the one or more short-range RF transceivers are used to send and receive information from the second communication module, and possibly from other local devices such as an RF interface cradle, reading on the claimed "an interface circuit which is controlled by the electronic central unit of said central base and which is connected to said supply line," (paragraphs 54, 55).

However, Griffin et al. fail to specifically disclose that messages are sent over a supply line and a low-pass filter is used.

In the same field of endeavor, Lesguillier et al. clearly show and disclose power line communication system includes a transmitter and a receiver, both providing a communication path between two communication control devices over a power line (abstract). The receiver has a carrier sense function, and with this carrier sense function, when in the receiving mode, a reference signal mixes with the incoming communication signal. If the received signal on the power line is lower than the reference signal, the communication control device performs correct demodulation of the reference signal, and the received signal is seen as noise. However, if the received signal on the power line is higher than the reference signal, demodulation errors occur at the communication control device, thereby indicating that the received signal is an actual message, reading on the claimed "interface circuit adapted to send and receive messages on said supply line, and further adapted to send and receive high frequency periodic signals representative of sent and received messages, (col. 2 lines 1-12). When the transmitter (1) is active, a communication signal (2) generated by the communication control device enters the transmitter (1) through its signal input. The communication signal (2) is referred to as the "PL_TX" input signal (2) hereafter. The communication signal (2) is preferably first sent through a low-pass band filter (3) to eliminate high frequencies, reading on the claimed "low-pass filter adapted to filtering said high frequency periodic signals received from the supply line between the interface circuit of the central base and at least a portion of the electronic circuits of the central base," (col. 3 lines 20-30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made use a low-pass filter to block high frequencies as taught by Lesguillier et al. in the communication device of Griffin et al., in order to implement a personal area network using a pico-cell base station (Griffin et al.; paragraph 62).

Consider **claim 2**, Griffin et al., as modified by Lesguillier et al., clearly show and disclose the claimed invention **as applied to claim 1 above**, and in addition, Griffin et al. further discloses that the basic system could be expanded to include wireless communication between the device modules and a third module, such as an RF interface cradle. If the first communication module **212** includes a rechargeable power source, then the third module **234** may be a docking station or cradle into or upon which the first module may be removably placed in order to recharge its power source, reading on the claimed "which the interface circuit of the central base is installed in drop and insert mode on said supply line," (paragraph 60).

Consider **claim 7**, Griffin et al., as modified by Lesguillier et al., clearly show and disclose the claimed invention **as applied to claim 1 above**, and in addition, Griffin et al. further that the second communication module preferably includes a rechargeable power source that is recharged by the first communication module through the charging terminals while the second communication module is in its fully mounted position. The charging terminals on the first communication module are preferably coupled to an internal power

source through appropriate conversion and control circuitry in order to provide a charge to an additional power source in the second communication module, (abstract, paragraphs 35, 37). Each such "base station" third module could, for example, then be configured for short-range communication with the first and/or second communication modules of all multiple-module communication devices issued to corporate employees, (paragraph 62). The input devices on the first communication module are preferably used to respond to and generate messages, such as email messages. The long-range RF transceiver is used to send and receive information from the long-range wireless network, and the one or more short-range RF transceivers are used to send and receive information from the second communication module, and possibly from other local devices such as an RF interface cradle, reading on the claimed "wireless device comprising a central base and an external interface module, distinct from the central base, which itself comprises: an electronic central unit, and an interface circuit controlled by said electronic central unit of the external interface module and which is connected to said supply line, this interface circuit of the external interface module being suitable for communicating with the interface circuit of the central base by sending and receiving messages on said supply line," (paragraphs 54, 55).

Consider **claim 8**, Griffin et al., as modified by Lesguillier et al., clearly show and disclose the claimed invention **as applied to claim 7 above**, and in addition, Griffin et al. further discloses that the second communication module

may be mounted to the first communication module in either an operative or inoperative position, reading on the claimed "interface circuit of the external interface module is installed in drop and insert mode on said supply line," (paragraph 43).

Consider **claim 9**, Griffin et al., as modified by Lesguillier et al., clearly show and disclose the claimed invention **as applied to claim 7 above**, and in addition, Griffin et al. further discloses that the second communication module is configured to receive the RF signals from the first communication module over the wireless link and to convert the RF signals into an audible signal, and includes a rechargeable power source that is recharged by the first communication module through the charging terminals while the second communication module is in its fully mounted position, reading on the claimed "interface circuit of the external interface module, and an electricity supply device intended to connect said supply line to the external electricity power source," (abstract, paragraph 35).

However, Griffin et al. fail to specifically disclose using a low-pass filter and sending or receiving messages over a supply line.

Lesguillier et al. further disclose the receiver has a carrier sense function, and with this carrier sense function, when in the receiving mode, a reference signal mixes with the incoming communication signal. If the received signal on the power line is lower than the reference signal, the communication control device performs correct demodulation of the reference signal, and the received

signal is seen as noise. However, if the received signal on the power line is higher than the reference signal, demodulation errors occur at the communication control device, thereby indicating that the received signal is an actual message. When the transmitter (1) is active, a communication signal (2) generated by the communication control device enters the transmitter (1) through its signal input. The communication signal (2) is referred to as the "PL_TX" input signal (2) hereafter. The communication signal (2) is preferably first sent through a low-pass band filter (3) to eliminate high frequencies, reading on the claimed "interface circuit of the external interface module is suitable for sending and receiving high frequency periodic signals representative of messages sent and received, and an electricity supply device intended to connect said supply line to the external electricity power source; low-pass filter suitable for filtering said high frequency periodic signals," (col. 2 lines 1-12, col. 3 lines 20-30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made use a low-pass filter to block high frequencies as taught by Lesguillier et al. in the communication device of Griffin et al., in order to implement a personal area network using a pico-cell base station (Griffin et al.; paragraph 62).

Consider **claim 13**, Griffin et al., as modified by Lesguillier et al., clearly show and disclose the claimed invention **as applied to claim 7 above**, and in addition, Griffin et al. further disclose that this system may also be further expanded to include network communications between the first and second

communication modules and wired network through the PC to incorporate connectivity via small pico-cell networks. Each such "base station" third module could, for example, then be configured for short-range communication with the first and/or second communication modules of all multiple-module communication devices issued to corporate employees, reading on the claimed "external electronic device distinct from the external interface module and communicating with the electronic central unit of said external interface module," (paragraph 62).

Consider **claim 14**, Griffin et al., as modified by Lesguillier et al., clearly show and disclose the claimed invention **as applied to claim 3 above**, and in addition, Griffin et al. further disclose that the communication device may include a camera component for displaying or sending video images to the communication device user, or could include sensory circuits for monitoring the communication device user's vital information such as pulse and blood pressure. A nurse or doctor in a hospital floor could wear the first component, while the second might be in a patient's room monitoring some vital statistics. The short-range communication in this example might reach several hundred feet and several second components might be communicating to a single first component. This information could then be relayed on from the first component worn by the nurse or doctor to a central nursing station for all nurses on duty to see and monitor, reading on the claimed "external electronic device is chosen from a

sensor, an actuator and a centralized command and control device suitable for being connected to a plurality of sensors and actuators," (paragraph 57).

Consider **claim 15**, Griffin et al., as modified by Lesguillier et al., clearly show and disclose the claimed invention **as applied to claim 7 above**, and in addition, Griffin et al. further discloses that the second communication module is configured to receive the RF signals from the first communication module over the wireless link and to convert the RF signals into an audible signal, and includes a rechargeable power source that is recharged by the first communication module through the charging terminals while the second communication module is in its fully mounted position, reading on the claimed "central base, and in which the electronic central unit of the external interface module is suitable for causing messages intended to be sent by the central base in the form of outgoing service messages to be generated on the supply line, by the interface circuit of said external interface module," (abstract, paragraph 35).

5. **Claims 3 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Griffin et al. (Pub # U.S. 2004/0063456 A1)** in view of **Lesguillier et al. (U.S. Patent # 6,727,804 B1)**, and in further view of **De Ruijter et al. (Pub # U.S. 2005/0036568 A1)**.

Consider **claims 3 and 10**, and **as applied to claims 1 and 7 above**, respectively, Griffin et al., as modified by Lesguillier et al., clearly show and

disclose the claimed invention except that the system may receive periodic signals between 100 and 500 kHz.

In the same field of endeavor, De Ruijter et al. clearly show and disclose a data slicer circuit for extracting data from a received analogue signal, the received analogue signal having a preamble of a predetermined preamble frequency and a data portion with the data, the data portion having a predetermined data frequency, wherein the circuit comprises a low pass filter for obtaining a signal representing a DC value (V_{dc}) of the received signal. During reception of the data 3db cut-off frequency of the low-pass filter is set to 100 Hz, reading on the claimed "interface circuit of the central base (external interface module) is suitable for sending and receiving periodic signals at a frequency lying between 100 and 500 kHz," (paragraphs 5, 8).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made use a low-pass filter set to 100Hz as taught by De Ruijter et al. in the communication device of Griffin et al., as modified by Lesguillier et al., in order to implement a personal area network using a pico-cell base station (Griffin et al.; paragraph 62).

6. **Claims 4 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Griffin et al. (Pub # U.S. 2004/0063456 A1)** in view of **Lesguillier et al. (U.S. Patent # 6,727,804 B1)**, and in further view of **Johnston et al. (U.S. Patent # 5,787,360)**.

Consider **claims 4 and 11**, and **as applied to claims 1 and 7 above**, respectively, Griffin et al., as modified by Lesguillier et al., clearly show and disclose the claimed invention except that the interface circuit is controlled by a serial interface controller.

In the same field of endeavor, Johnston et al. clearly show and disclose that in a mobile communications system each radio unit is associated with a 'home' station, and each base station has a LAN interface for connection to a local area network. The base station **12** includes a microprocessor, radio interface, telephone interface, a LAN interface, and a serial interface that contains a UART, reading on the claimed "interface circuit of the central base is controlled by the electronic central unit of the central base via a serial interface controller," (abstract, col. 10 line 22- col. 11 line 11).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a UART within the base station as taught by Johnston et al. in the communication device of Griffin et al., as modified by Lesguillier et al., in order to convert between data received over the associated link and data signals propagating in bit-serial form (Johnston et al.; col. 11 lines 5-9).

7. **Claims 5, 6 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Griffin et al. (Pub # U.S. 2004/0063456 A1)** in view of **Lesguillier et al. (U.S. Patent # 6,727,804 B1)**, and in further view of **Folger et al. (U.S. Patent # 5,337,044)**.

Consider **claim 5**, Griffin et al., as modified by Larsen, clearly show and disclose the claimed invention **as applied to claim 1 above**, and in addition, Griffin et al. further disclose that the input devices on the first communication module are preferably used to respond to and generate messages, such as email messages. The long-range RF transceiver **168** is used to send and receive information from the long-range wireless network, and the one or more short-range RF transceivers **170** are used to send and receive information from the second communication module, and possibly from other local devices such as an RF interface cradle, reading on the claimed "central base suitable for sending outgoing messages at least to the public telecommunication network and for receiving incoming messages at least from said public telecommunication network, the electronic central unit of the central base being suitable for: (a) recognizing at least certain incoming messages intended for an external interface module, called service messages, (b) and when it receives a message received by the interface circuit of the central base, determining whether this message must be transmitted to the outside and, in this case, sending an outgoing message, called outgoing service message, corresponding to the message received," (paragraph 54).

However, Griffin et al., fail to specifically disclose that the information is sent via the supply line.

Lesguillier et al. further disclose power line communication system includes a transmitter and a receiver, both providing a communication path

between two communication control devices over a power line (abstract). The receiver has a carrier sense function, and with this carrier sense function, when in the receiving mode, a reference signal mixes with the incoming communication signal. If the received signal on the power line is lower than the reference signal, the communication control device performs correct demodulation of the reference signal, and the received signal is seen as noise. However, if the received signal on the power line is higher than the reference signal, demodulation errors occur at the communication control device, thereby indicating that the received signal is an actual message, reading on the claimed "causing to be generated on the supply line, a message corresponding to each incoming service message, (b) and when it receives a message received by the interface circuit of the central base on the supply line, determining whether this message must be transmitted to the outside and, in this case, sending an outgoing message, called outgoing service message, corresponding to the message received, (col. 2 lines 1-12).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement a power line communication system as taught by Lesguillier et al. in the communication device of Griffin et al., in order to implement a personal area network using a pico-cell base station (Griffin et al.; paragraph 62).

However, Griffin et al., as modified by Larsen, fail to specifically disclose that information (messages) sent and received are alphanumeric messages.

In the same field of endeavor, Folger et al. clearly show and disclose a system for remote control of a mobile computer system from a base computer system, where the base system generates control command tokens, which are broadcast over a pager system. The base station might be a desktop computer, perhaps connected to a local area network. A command may be issued by the computer such as someone typing an alphanumeric message using a telephone keypad, reading on the claimed "alphanumeric message," (abstract, col. 3 lines 61-67, col. 6 lines 5-11).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made send alphanumeric messages as commands from a computer or telephone as taught by Folger et al. in the communication device of Griffin et al., as modified by Lesguillier et al., in order to implement a personal area network using a pico-cell base station (Griffin et al.; paragraph 62).

Consider **claim 6**, the combination of Griffin et al. and Lesguillier et al., as modified by Folger et al., clearly show and disclose the claimed invention **as applied to claim 5 above**, and in addition, Griffin et al. further disclose that the one or more short-range RF transceivers **170** are used to send and receive information from the second communication module, and possibly from other local devices such as an RF interface cradle, reading on the claimed "sending outgoing messages to at least one wireless peripheral device by using said

wireless protocol, and for receiving incoming messages from said wireless peripheral device.” (paragraph 54).

However, Griffin et al., as modified by Lesguillier et al., fail to specifically disclose that information (messages) sent and received are alphanumeric messages.

Folger et al. further disclose that the command may be issued by the computer such as someone typing an alphanumeric message using a telephone keypad, reading on the claimed “alphanumeric message,” (abstract, col. 3 lines 61-67, col. 6 lines 5-11).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made send alphanumeric messages as commands from a computer or telephone as taught by Folger et al. in the communication device of Griffin et al., as modified by Lesguillier et al., in order to implement a personal area network using a pico-cell base station (Griffin et al.; paragraph 62).

Consider **claim 16**, Griffin et al. clearly show and disclose a communication device having multiple detachable communication modules includes a first communication module and a second communication module. The first communication module is configured to receive RF signals from a wireless network. The second communication module preferably includes a rechargeable power source that is recharged by the first communication module through the charging terminals while the second communication module is in its

fully mounted position. The charging terminals on the first communication module are preferably coupled to an internal power source through appropriate conversion and control circuitry in order to provide a charge to an additional power source in the second communication module. The device **10** could also be adapted to receive a connector jack or plug from a more common wall-mounted type charger device, reading on the claimed "central base for a private wireless local area network, the central base comprising an electronic central unit that is supplied with electricity by at least one live supply line intended to be connected to an external electricity power source, said central base adapted to communicate, with a public telecommunication network," (abstract, paragraphs 35, 37). Communication between the multiple-module device **212/214** and the computer **232** provides for countless possible functionality options, such as simple paging and other notification, remote- and voice-activated computer and peripheral control and wireless file or information downloading and uploading. This system may also be further expanded to include network communications between the first and second communication modules and wired network through the PC to incorporate connectivity via small pico-cell networks. Each such "base station" third module could, for example, then be configured for short-range communication with the first and/or second communication modules of all multiple-module communication devices issued to corporate employees, reading on the claimed "with at least one wireless peripheral device, according to a digital bidirectional wireless protocol for a private wireless local area network,"

(paragraph 62). The first communication module preferably includes a pair of antennas, a processor, a memory, an LCD display, at least one rechargeable battery, a long-range RF transceiver, one or more short-range RF transceivers, a power supply and recharging circuit, a cradle interface circuit, and one or more input devices; including, preferably, a keyboard and a thumbwheel. The input devices on the first communication module are preferably used to respond to and generate messages, such as email messages. The long-range RF transceiver is used to send and receive information from the long-range wireless network, and the one or more short-range RF transceivers are used to send and receive information from the second communication module, and possibly from other local devices such as an RF interface cradle, reading on the claimed "an interface circuit which is controlled by the electronic central unit of said central base and which is connected to said supply line, wherein the electronic central unit is further adapted to receive an incoming message at least from the public telecommunication network, and determine the incoming message is intended for an external device," (paragraphs 54, 55).

However, Griffin et al. fail to specifically disclose that messages are sent over a supply line and a low-pass filter is used.

In the same field of endeavor, Lesguillier et al. clearly show and disclose power line communication system includes a transmitter and a receiver, both providing a communication path between two communication control devices over a power line (abstract). The receiver has a carrier sense function, and with

this carrier sense function, when in the receiving mode, a reference signal mixes with the incoming communication signal. If the received signal on the power line is lower than the reference signal, the communication control device performs correct demodulation of the reference signal, and the received signal is seen as noise. However, if the received signal on the power line is higher than the reference signal, demodulation errors occur at the communication control device, thereby indicating that the received signal is an actual message, reading on the claimed "interface circuit adapted to send and receive messages on said supply line, and further adapted to send and receive high frequency periodic signals representative of sent and received messages, (col. 2 lines 1-12). When the transmitter (1) is active, a communication signal (2) generated by the communication control device enters the transmitter (1) through its signal input. The communication signal (2) is referred to as the "PL_TX" input signal (2) hereafter. The communication signal (2) is preferably first sent through a low-pass band filter (3) to eliminate high frequencies, reading on the claimed "low-pass filter adapted to filtering said high frequency periodic signals received from the supply line between the interface circuit of the central base and at least a portion of the electronic circuits of the central base," (col. 3 lines 20-30).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made use a low-pass filter to block high frequencies as taught by Lesguillier et al. in the communication device of Griffin

et al., in order to implement a personal area network using a pico-cell base station (Griffin et al.; paragraph 62).

However, Griffin et al., as modified by Lesguillier et al., fail to specifically disclose that information (messages) sent and received are alphanumeric messages.

In the same field of endeavor, Folger et al. clearly show and disclose a system for remote control of a mobile computer system from a base computer system, where the base system generates control command tokens, which are broadcast over a pager system. The base station might be a desktop computer, perhaps connected to a local area network. A command may be issued by the computer such as someone typing an alphanumeric message using a telephone keypad, reading on the claimed "alphanumeric message," (abstract, col. 3 lines 61-67, col. 6 lines 5-11).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made send alphanumeric messages as commands from a computer or telephone as taught by Folger et al. in the communication device of Griffin et al., as modified by Lesguillier et al., in order to implement a personal area network using a pico-cell base station (Griffin et al.; paragraph 62).

Art Unit: 2617

8. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Griffin et al. (Pub # U.S. 2004/0063456 A1)** in view of **Lesguillier et al. (U.S. Patent # 6,727,804 B1)**, and in further view of **Watler et al. (U.S. Patent # 6,836,655 B1)**.

Consider **claim 12**, and **as applied to claim 7 above**, Griffin et al., as modified by Lesguillier et al., clearly show and disclose the claimed invention except that the modules communicate using a half-duplex asynchronous protocol.

In the same field of endeavor, Watler et al. clearly show and disclose an interlink receiver system and receiver unit for remote encoding of wireless phone units. The interlink receiver is plugged into the phone unit by removing the battery pack and seating a SIM card in the handset with the electrical contacts of the SIM card in contact with the terminal contacts of the phone unit. The phone unit complies with a communication protocol in ISO 7816 to exchange data and code commands with the SIM card, reading on the claimed "central base and the external interface module are suitable for communicating together according to a half-duplex asynchronous protocol," (abstract, col. 9 lines 22-39).

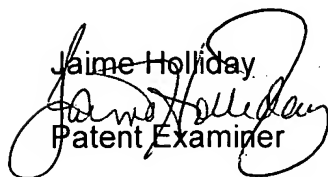
Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to communicate using ISO7816 standards (half-duplex asynchronous protocol) as taught by Watler et al. in the communication device of Griffin et al., as modified by Lesguillier et al., in order to implement a personal area network using a pico-cell base station (Griffin et al.; paragraph 62).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaime M. Holliday whose telephone number is (571) 272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jaime Holliday

Patent Examiner


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER